

REMARKS

This Amendment is in response to the Office Action of September 26, 2005. The Office Action indicated that Claims 1-25 are pending and rejected. With this Amendment, Claims 1, 12, 22 are amended, and Claims 1-25 are presented for reconsideration and allowance.

Claims 1-25 were rejected under 35 USC 103(a) over Hosoi et al. (US 4,132,112).

With this Amendment, Claims 1, 12, 22 are amended to include limitations to a computer, storing a stored setting that controls compressive force in the computer, and the computer updating the stored setting as a function of comparing a sensed pressure pattern to a reference pressure pattern.

Hosoi et al. does not teach or suggest providing a computer. Hosoi et al. does not teach or suggest storing a stored setting that controls compressive force in a computer. Hosoi does not teach or suggest a computer updating a stored setting that controls compressive force as a function of a computer comparing a sensed pressure pattern to a reference pattern.

As pointed out in applicant's specification at page 1, lines 31-32, a method and apparatus are needed that can set compressive forces to control pressure patterns in mass production of precision assemblies. Hosoi et al. does not teach or suggest a method or apparatus that is amenable to such a mass production environment.

The invention, as presently claimed in Claims 1, 12, 22 provides for computer control of compressive force, and provides for storing a reference pressure pattern in a computer. The need for operator skill is greatly reduced and compressive forces can be controlled in a mass production environment by workers with limited understanding of the complex processes involved. The computer automatically controls the setting of compressive force.

The arrangements taught by Hosnoi et al. teach using a densitometer, preparing a table or calibration sheet or graph for comparing the density of color formed and the pressure applied. Hosnoi et al. method requires the skill to use a densitometer and the skill to prepare tables or graphs to interpret results, and the skill to make adjustments to control compressive force. These steps are time consuming and require knowledge of densitometer operation and calculation abilities for the operator. With the invention as presently claimed, however, no such operator skills are required. In the invention as presently claimed, comparing is performed by a computer that can be operated by an unskilled production worker in a mass production environment. The computer automatically makes the adjustments.

It would not have been obvious for a person of ordinary skill to store a stored setting that controls compressive force in a computer and to update the stored setting as a function of a computer comparing a sensed pressure pattern to a reference pattern. The invention as claimed in Claims 1, 12, 22 provides a method and apparatus that moves a laboratory test method into the realm of an automated compressive force control system that can be used effectively in a mass production environment.

Claims 1, 12 and 22, as presently amended, are thus believed to be non-obvious and patentable over Hosoi et al. US 4,132,112. Reconsideration and allowance of Claims 1, 12, and 22 are therefore requested,

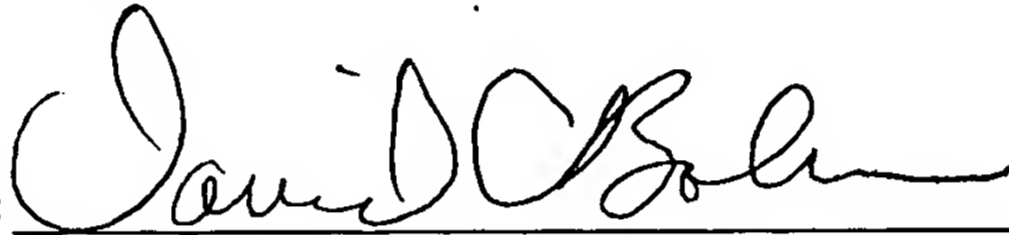
Dependent Claims 2-11, 13-21, 23-25 provide additional limitations that, when taken in combination with the limitations of the respective amended base claims, are also believed to be non-obvious and patentable. Reconsideration and allowance of Claims 2-11, 13-21, 23-25 are therefore requested.

The other references cited by the Examiner have been considered, and Claims 1-25 are believed to be patentable over such references.

The Application appears to be in condition for allowance, and favorable action is requested. The Director is authorized to charge any fee deficiency required by this paper or credit any overpayment to Deposit Account No. 23-1123.

Respectfully submitted,

WESTMAN, CHAMPLIN & KELLY, P.A.

By: 
David C. Bohn, Reg. No. 32,015
Suite 1400 - International Centre
900 Second Avenue South
Minneapolis, Minnesota 55402-3319
Phone: (612) 334-3222 Fax: (612) 334-3312